



Model Number

NEN20-18GM50-E3-V1

Features

- Increased operating distance
- 20 mm non-flush

Accessories

BF 18

Mounting flange, 18 mm

V1-G

Female connector, M12, 4-pin, field attachable

V1-W

Female connector, M12, 4-pin, field attachable

V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

Technical Data

General specifications

Switching function	Normally closed (NC)
Output type	PNP
Rated operating distance	s_n 20 mm
Installation	non-flush
Output polarity	DC
Assured operating distance	s_a 0 ... 16.2 mm
Actuating element	mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 60 mm x 60 mm x 1 mm
Reduction factor r_{Al}	0.35
Reduction factor r_{Cu}	0.3
Reduction factor r_{304}	0.7
Reduction factor r_{Brass}	0.45
Output type	3-wire

Nominal ratings

Installation conditions	
A	in steel 1.0037 (St37): 20 mm
B	30 mm
C	60 mm
F	78 mm
Operating voltage	U_B 10 ... 30 V
Switching frequency	f 0 ... 200 Hz
Hysteresis	H 0.1 ... 2 mm
Reverse polarity protection	yes
Short-circuit protection	pulsing
Overload resistance	yes
Wire breakage protection	yes
Inductive overvoltage protection	yes
Surge suppression	yes
Ripple	10 %
Voltage drop	U_d ≤ 2 V
Repeat accuracy	R 1 mm
Operating current	I_L 0 ... 200 mA
Off-state current	I_r ≤ 10 μ A
No-load supply current	I_0 ≤ 11 mA
Time delay before availability	t_v ≤ 50 ms
Switching state indicator	LED, yellow

Functional safety related parameters

MTTF _d	2650 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Ambient conditions

Ambient temperature	-25 ... 85 °C (-13 ... 185 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications

Connection type	Connector plug M12 x 1, 3-pin
Housing material	brass, nickel-plated
Sensing face	PBT
Degree of protection	IP67
Mass	30 g
Tightening torque, fastening screws	max. 20 Nm

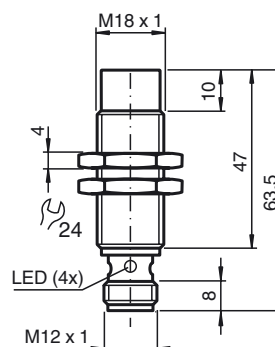
Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007

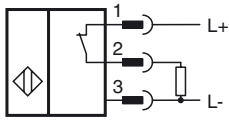
Approvals and certificates

EAC conformity	TR CU 020/2011
UL approval	cULus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated ≤ 36 V

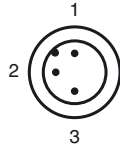
Dimensions



Electrical Connection



Pinout



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)

Installation Conditions

